

## REMARKS

Claims pending in the instant application are numbered 1-26. Claims 1-18 are rejected. Claims 19-26 are withdrawn.

The Applicant respectfully requests reconsideration of the present application in view of the amendments and the following remarks.

### *Election/Restriction*

The Applicant affirms the election of Group I, claims 1-18, without traverse. Claims 19-26 have been cancelled without prejudice.

### *Amendment to the Specification*

The specification has been amended to correct a typographical error. The Applicant respectfully requests entry of the amendment.

### *Objection to the Specification*

The disclosure is objected to because of the following informalities: the use of the word “cap” for reference 104 through out the specification is misleading. The Applicant respectfully disagrees.

First, the Applicant respectfully requests the Examiner to cite authority for the Examiner’s objection that a term used in the specification must be corrected because the Examiner asserts the term is misleading.

Second, the Applicant submits that the term “cap” as used in the specification is not misleading to one of ordinary skill in the art. Figure 1 discloses a MEMS RF switch module

100. One of ordinary skill in the art would understand that cap section 104 is coupled to MEMS die 102 to protect RF switch array 124. For example, on page 7, lines 4-14, of the specification, the Applicant discloses in one embodiment that cap section 104 protects switch array 124 from dust and other contaminants. Indeed, Huang, U.S. 6,384,353, (cited by the Examiner) uses the term “cap.” Huang describes a protective cap 150 positioned over a MEMS device (col. 3, lines 55-57; col. 4, lines 12-14).

While Applicant’s Figure 1 shows cap 104 between MEMS die 102 and PCB 106, one skilled in the art would understand that the term “cap” is in relation to MEMS die 102 to protect RF switch array 124. One of ordinary skill in the art would understand that MEMS RF switch module 100 is mounted “upside-down” on PCB 106 and would not be confused as to the use of the term “cap.” For example, on page 6, lines 5-7, of the specification, the Applicant discloses that in one embodiment, contacts 110 and 112 may be used to electrically and physically couple MEMS RF switch module 100 to PCB 106 using well known methods.

Third, while made in the context of the claims, it is noted that a fundamental principle of § 112, second paragraph, is that applicants are their own lexicographers (M.P.E.P. § 2173.01). Also, claims terms are presumed to have the ordinary and customary meanings attributed to them by those of ordinary skill in the art (M.P.E.P. § 2111.01 citing *Sunrace Roots Enter. Co. v. SRAM Corp.*, 336 F.3d 1298, 1302 (Fed. Cir. 2003)). One of ordinary skill would understand the use of the term “cap” in the claims, and subsequently, the use of the term “cap” in the specification.

Thus, the Applicant respectfully requests that the objection to the specification be withdrawn.

### *Claim Objections*

Claims 1-7 are objected to because of informalities. The Examiner asserts that the “at least one via” of claims 1-3 and 6 must be changed to “a plurality of vias” in order to not contradict with dependent claims 4 and 5 that recites a first, second, and third via. The Applicant respectfully disagrees.

Claim 1 expressly recites “at least one via,” that is, one or more vias. Claims 4 and 5 claim a first, second, and a third via which may be interpreted as more than one via. Thus, there is no contradiction between the claims because “at least one via” of claim 1 may encompass a first, second, and third via of claims 4 or 5. The Examiner is respectfully reminded that claims should be interpreted so as to preserve their validity (*Modine Mfg. Co. v. USITC*, 75 F.3d 1545, 1557 (Fed. Cir. 1996)).

The Examiner also objects to claims 6 and 7 asserting that “a first via” and “a second via” are confusing. The Applicant respectfully disagrees.

Claim 6 expressly recites “a first via of the at least one via.” Thus, claim 6 clearly recites that the “at least one via” of claim 1 includes the first via. Claim 7 similarly recites “a second via of the at least one via.”

Claims 10-18 are objected to because of informalities similarly as above to claims 1-7. The Applicant respectfully requests the claim objections be withdrawn for the same reasons as described above in conjunction with claims 1-7.

*35 U.S.C. § 102 and § 103 Rejections*

Claims 1-8 and 10-17 are rejected under 35 U.S.C. § 102(b) as being anticipated by Huang, U.S. 6,384,353. Claims 9 and 18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Huang in view of Hinzl, U.S. 6,559,530.

Claim 1 as presently amended expressly recites (emphasis added):

An apparatus, comprising:

a Micro-electromechanical System (MEMS) module including at least one MEMS device and a cap covering the at least one MEMS device;

at least one contact mounted to a bottom of the MEMS module; and

at least one via to pass vertically through the cap to electrically couple the at least one MEMS device to the contact.

Huang discloses a MEMS device 100 (Figures 3-5). MEMS device 100 includes protective cap 150 bonded to substrate 110 (col. 3, lines 12-15; Figure 5). Substrate 110 supports the MEMS components, such as switches and sensors (col. 2, lines 61-64). Huang discloses vias 140 formed in substrate 110 (Figure 5). However, Huang fails to disclose vias in protective cap 150. Thus, Huang fails to disclose “at least one via to pass vertically through the cap” as expressly claimed by the Applicant.

It is noted that on page 7 of the instant Office Action, the Examiner asserts that Huang discloses “a cap section 110 coupled to a MEMS die.” The Applicant disagrees with this interpretation of Huang. The Examiner is attempting to rename components of Huang in

a way that is contradictory to the disclosure of Huang. Huang clearly describes a protective cap 150 and a substrate 110 where a MEMS component is formed on substrate 110.

Also, the Examiner's use of "cap section 110" in the rejection of claim 10 is inconsistent with the rejection of claims 12 and 13. In the rejection of claims 12 and 13, the Examiner cites caps 13 and 28 of Figures 1 and 2 of Huang where caps 13 and 28 cover MEMS devices 11 and 21 formed on substrates. Thus, in the rejection of claim 10, the Examiner references a substrate of Huang as disclosing the Applicant's "cap section," but in the rejection of claims 12 and 13, the Examiner references a cap of Huang as disclosing the Applicant's "cap section."

In summary, Huang fails to disclose, teach, or fairly suggest at least one of the expressly recited limitations of claim 1. Accordingly, claim 1 is not anticipated by Huang. Independent claim 10 distinguishes for at least the same reasons as claim 1. Claims 2-9 and 11-18 are dependent claims and distinguish for at least the same reasons as their independent base claims in addition to adding further limitations of their own. Therefore, the Applicant respectfully requests that the instant § 102 and § 103 rejections be withdrawn.

#### *Conclusion*

The Applicant submits that in view of the remarks and amendments set forth herein, all pending claims are in condition for allowance. Therefore, the Applicant respectfully requests the Examiner to issue a Notice of Allowance in this case.

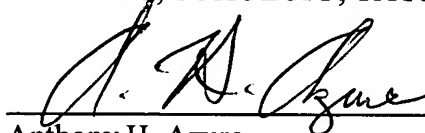
*Charge Deposit Account*

Please charge our Deposit Account No. 02-2666 for any additional fee(s) that may be due in this matter, and please credit the same deposit account for any overpayment.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN

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Anthony H. Azure

Reg. No. 52,580

Phone: (206) 292-8600 x311